



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,097	10/31/2003	Edward H. Overstreet	3021-0062 (05-00629-02)	9705
71418 7590 04/08/2008 ADVANTEDGE LAW GROUP, LLC 3301 N. UNIVERSITY AVE. SUITE 200 PROVO, UT 84604				
EXAMINER				
HOLMES, REX R				
ART UNIT		PAPER NUMBER		
3762				
MAIL DATE		DELIVERY MODE		
04/08/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/698,097

Applicant(s)

OVERSTREET ET AL.

Examiner

REX HOLMES

Art Unit

3762

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 24-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-4, 7 and 24-26 are rejected under 35 U.S.C. 103(a) as being anticipated by Carter et al. (U.S. Pat. 6,205,360 hereinafter "Carter") in view of Karunasiri et al. (U.S. Pat. 6,195,585 hereinafter "Karunasiri").
5. Regarding claims 1-4, 7 and 24-26, Carter teaches a multi-channel implantable cochlear stimulator intended to produce a neural response with an electrode array 5

adapted for implantation in a patient's inner ear used for applying electrical stimuli (Col. 5, ll. 65-67). The electrode array 5 is also used to detect an evoked action potential (EAP) (Col. 6, ll. 15-17). It is further disclosed that Carter can sense the action potential using the stapedius sensor during the stimulation sequence (Fig. 13). EAPs are measured for one channel of the electrode array 5 at a time, wherein "channels" comprise any number or combination of electrodes on the array 5, specifically two or more (Col. 6, ll. 5-59). Once the EAP is sensed and determined then that value is used in setting the intensity of the stimulus for the device (Col. 6, ll. 50-62).

6. Carter discloses the claimed invention including sensing the action potential during the stimulation sequence but fails to disclose that the electrodes on the array sense during the stimulation. However, Karunasiri discloses a implantable cochlear stimulator with a electrode array that is used for both stimulation and sensing of action potentials simultaneously (Col. 12, ll. 13-17; Fig. 4). Karunasiri further discloses that any of the electrodes on the 16 electrode array can be used for stimulation or sensing (Col. 12, ll. 13-17). Karunasiri further discloses that the sensed action potentials can be fed back into the stimulator to assist in setting the stimulus parameters (Col. 2, ll. 50-62). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device that senses with both an electrode array and stapedius sensor as taught by Carter, with a action potential sensing system that utilizes a single cochlear electrode array as taught by Karunasiri, since such a modification would provide the predictable result of sensing and stimulating with a single array minimizing the number of invasive sensors and minimizing costs.

Art Unit: 3762

7. Claims 5-6, 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter in view of karunasiri as applied to claims 1-4 and 7 above, and further in view of Doyle, Sr. (U.S. Pat. 6,175,767).

8. Regarding claims 5-6, 8-15, Carter in view of Karunasiri further discloses that once the intensity level is set for the first channel the entire procedure is used for each of the other stimulation channels. Carter in view of Karunasiri further stores the threshold data in table 23 and then uses the data to alter the stimulation level of the stimulation channels (Carter; Col. 7, ll. 3-5; Col. 5 ll. 6-17; Col. 6, ll. 64-66), but Carter in view of Karunasiri does not plot the threshold data. However, Doyle Sr. teaches that a strength-duration curve is used to relate threshold intensity levels to stimulation parameters necessary for axon activation (Col. 12, ll. 49-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Carter in view of Karunasiri to contour plot the threshold data stored in the patient storage table since it is well known to plot tabulated data in order to graphically depict variable relationships.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REX HOLMES whose telephone number is (571)272-8827. The examiner can normally be reached on M-F 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George R Evanisko/
Primary Examiner, Art Unit 3762

/R. H./
Examiner, Art Unit 3762